



Introduction to Information Visualization

Course Number: 98720

Number of credit points 2

Mini-Semester: 5 of the Academic Year: 2020

Time: (Day & Hour) Thursdays, 18:00-21:30

Course Instructor: **Dr. Peter Bak**

E –mail: **bakpeter6@gmail.com**

Telephone: **052-6677988**

Meeting time for students: **by appointment only**

Course Instructor: **Dr. Yael Albo**

E –mail: **alboyael@gmail.com**

Telephone: **050-7913134**

Meeting time for students: **by appointment only**

Syllabus:

Course Objectives:

The course intends to teach visualization design and analysis and provide hands-on experience in creating interactive visualizations on real-world data. Students will be exposed a wide range of information visualization techniques in a systematic way based on a strong theoretical background and scientific approach.

Course Content & Scope:

The course content starts with theoretical background on visualization analysis and design. The scope will include selected topics on information visualization consisting of space, time, networks, multidimensional attributes and sets visualization. The scope will extend to applied information visualization in science and technology.

Teaching Methods:

Presentation slides

Teaching Materials:

Power Point slides, Selected Readings



Readings (Compulsory / Recommended):

T. Munzner: Visualization Analysis and Design, <https://www.cs.ubc.ca/~tmm/vadbook/>
M. Ward et al. Interactive Data Visualization. Foundations, Techniques and applications, <http://www.idvbook.com/>
D. Murray: Tableau Your Data, <https://tanthiamhuat.files.wordpress.com/2015/07/tableau-your-data.pdf>

Student Assessment:

Project: 70% (PDF file per email-attachment)
Assignment: 20%
Exercises: 10%
Submission date of the project: 17/9/2020

Course Plan

Lesson 1. 16.7

Motivation for Interactive Visualization (Lecture Slides)
Visualization Analysis and Design (Lecture Slides, and Readings) Part 1.

Lesson 2. 23.7

Data Abstraction; Marks& Channels; Visual perception;
Tableau – Introduction, Connecting to Data, Preparing Data, UI Overview,
Discrete and Continuous Data

Lesson 3. 30.7

Task Abstraction; Arrange Tables; Choosing a chart
Tableau – Charts, Calculated fields

Lesson 4. 6.8

More charts. Manipulation, Facet, Reduce
Tableau – Interactions

Lesson 5. 13.8

Dashboards and Data Stories
Tableau – Dashboards & Stories

Lesson 6. 20.8

Space-Geo and Time-oriented data visualization (Lecture Slides)

Lesson 7. 27.8

Selected Topic / Guest Lectures
